

IN THE CLAIMS

1. (currently amended) A prefabricated construction element for use after its manufacturing as an underlayment or backerboard comprising:

- (a) a core having an upper principal surface and a lower principal surface; and
- (b) an impervious membrane on the lower principal surface of the core, the impervious membrane remaining on the lower principal surface of the core after the manufacture of the construction element;

the core including alkaline resistant fibers; and  
the construction element being prefabricated.

2. (original) The construction element of Claim 1, the alkaline resistant fibers being chopped reinforcement fibers randomly dispersed in the core.

3. (original) The construction element of Claim 2, the impervious membrane comprising a reinforced polymer membrane.

4. (original) The construction element of Claim 2, the impervious membrane comprising waterproof paperboard.

5. (original) The construction element of Claim 2, the impervious membrane comprising spunbonded olefin.

6. (original) The construction element of Claim 2, the impervious membrane comprising an alkaline resistant dense polymer fiber mat.

7. (currently amended) The construction element of Claim 2, the ~~element~~ core comprising Portland cement and an additive selected from the group consisting of expanded shale, expanded clay, sintered clay, pumice, slag, calcium carbonate, slate, diatomaceous slate, perlite, vermiculite, scoria, volcanic cinders, tuff, diatomite, sintered fly ash, industrial cinders, gypsum, foam beads and glass beads.

8. (currently amended) A ~~construction element~~ cementitious panel for use after its manufacturing as an underlayment or backerboard comprising:

- (a) a core having an upper principal surface and a lower principal surface;
- (b) a pervious upper reinforcement material on the upper principal surface of the core;
- (c) an upper coating in communication with the upper principal surface of the core and the pervious upper reinforcement material; and

(d) an impervious membrane on the lower principal surface of the core, the impervious membrane remaining on the lower principal surface of the core after the manufacture of the ~~construction element~~ cementitious panel;

the cementitious panel having a core including cement.

9. (currently amended) The ~~construction element~~ cementitious panel of Claim 8, the impervious membrane comprising a reinforced polymer membrane.

10. (currently amended) The ~~construction element~~ cementitious panel of Claim 8, the impervious membrane comprising waterproof paperboard.

11. (currently amended) The ~~construction element~~ cementitious panel of Claim 8, the impervious membrane comprising spunbonded olefin.

12. (currently amended) The ~~construction element~~ cementitious panel of Claim 8, the impervious membrane comprising an alkaline resistant dense polymer fiber mat.

13. (currently amended) The ~~construction element~~ cementitious panel of Claim 8, the cement core comprising Portland cement and an additive selected from the group consisting of expanded shale, expanded clay, sintered clay, pumice, slag, calcium carbonate, slate, diatomaceous slate, perlite, vermiculite, spona, volcanic cinders, tuff, diatomite, sintered fly ash, industrial cinders, gypsum, foam beads and glass beads.

14. (currently amended) A ~~construction element~~ prefabricated cementitious panel for use ~~after its manufacturing~~ as an underlayment or backerboard comprising:

- (a) a cement core having an upper principal surface and a lower principal surface;
- (b) a pervious reinforcement layer on the upper principal surface of the core;
- (c) a cement slurry binding the reinforcement layer to the upper principal surface of the core; and

(d) a high tensile strength, impervious moisture barrier membrane bound to the lower principal surface of the core, the impervious membrane remaining bound to the lower principal surface of the core after the manufacture of the ~~construction element~~ cementitious panel;

the cementitious panel being prefabricated; and

the impervious moisture barrier enabling water vapor to pass therethrough.

15. (currently amended) The ~~construction element~~ cementitious panel of Claim 14, the cement core comprising Portland cement and an additive selected from the group consisting of expanded shale, expanded clay, sintered clay, pumice, slag, calcium carbonate, slate,

diatomaceous slate, perlite, vermiculite, scoria, volcanic cinders, tuff, diatomite, sintered fly ash, industrial cinders, gypsum, foam beads and glass beads.

16. (currently amended) The ~~construction element~~ cementitious panel of Claim 14, the core comprising Portland cement and alkaline resistant fibers.

17. (currently amended) The ~~construction element~~ cementitious panel of Claim 16, the alkaline resistant fibers being chopped reinforcement fibers randomly dispersed in the core.

18. (currently amended) The ~~construction element~~ cementitious panel of Claim 14, the pervious reinforcement layer comprising a fiberglass mesh with an alkaline resistant coating, the fiberglass mesh of the pervious reinforcement layer selected from the group consisting of woven fiberglass and fiberglass sknm.

19. (currently amended) The ~~construction element~~ cementitious panel of Claim 14, the impervious moisture barrier membrane comprising an alkaline resistant dense polymer fiber mar.

20. (withdrawn) A method of manufacturing a construction element for use as an underlayment or backerboard comprising the following steps:

- (a) conveying a sheet of impervious reinforced membrane through a core station; and
- (b) depositing at the core station a core material on the impervious reinforced membrane;

the core material including alkaline resistant fibers;

the impervious reinforced membrane acting as a carrier sheet.

21. (withdrawn) The method of manufacturing according to Claim 20, the alkaline resistant fibers being chopped reinforcement fibers randomly dispersed in the core.

22. (withdrawn) The method of manufacturing according to Claim 21, the impervious reinforced membrane comprising a reinforced polymer membrane.

23. (withdrawn) The method of manufacturing according to Claim 21, the impervious reinforced membrane comprising waterproof paperboard.

24. (withdrawn) The method of manufacturing according to Claim 21, the impervious reinforced membrane comprising spunbonded olefin.

25. (withdrawn) The method of manufacturing according to Claim 21, the impervious reinforced membrane comprising an alkaline resistant dense polymer fiber mar.

26. (withdrawn) A method of manufacturing a construction element for use as an underlayment or backerboard comprising the following steps:

- (a) conveying a sheet of impervious reinforced membrane through a core station;
- (b) depositing at the core station a core material on the impervious reinforced membrane; and
- (c) layering a pervious membrane atop the core material such that the core material is sandwiched between the pervious membrane and the impervious membrane

the impervious reinforced membrane acting as a carrier sheet throughout the manufacturing process.

27. (withdrawn) The method of manufacturing according to Claim 26, further comprising the step of screeding the core material to reduce the thickness of the core material on the impervious reinforced material.

28. (withdrawn) The method of manufacturing according to Claim 27, said step of screeding smoothing out an upper surface of the core material.

29. (withdrawn) The method of manufacturing according to Claim 26, further comprising the step of compacting the core material on the impervious reinforced membrane.

30. (withdrawn) The method of manufacturing according to Claim 26, further comprising the step of bathing the pervious membrane in a binding agent prior to layering the pervious membrane on the core material.

31. (withdrawn) The method of manufacturing according to Claim 26, further comprising the step of cutting the construction element into panels.

32. (withdrawn) The method of manufacturing according to Claim 26, the impervious reinforced membrane comprising a reinforced polymer membrane.

33. (withdrawn) The method of manufacturing according to Claim 26, the impervious reinforced membrane comprising waterproof paperboard.

34. (withdrawn) The method of manufacturing according to Claim 26, the impervious reinforced membrane comprising Tyvek®.

35. (withdrawn) A method of manufacturing a construction element for use as an underlayment or backerboard comprising the following steps:

- (a) conveying a sheet of impervious reinforced membrane through the steps of the method of manufacturing;

(b) depositing a core material from a core material hopper to the conveyed impervious reinforced membrane; and

(c) screeding the core material on the conveyed sheet of impervious reinforced membrane with a screed;

(d) compacting the core material on the conveyed sheet of impervious reinforced membrane with a compactor;

(e) bathing a conveyed pervious reinforced membrane through a bath of cement; and

(f) layering the pervious reinforced membrane on the core material on the conveyed sheet of impervious reinforced membrane; and

(g) cutting the manufactured construction element into panels.

36. (currently amended) The prefabricated construction element of Claim 1, the impervious membrane comprising a reinforced polymer membrane.

37. (currently amended) The prefabricated construction element of Claim 1, the impervious membrane comprising waterproof paperboard.

38. (currently amended) The prefabricated construction element of Claim 1, the impervious membrane comprising spunbonded olefin.

39. (currently amended) The prefabricated construction element of Claim 1, the impervious membrane comprising an alkaline resistant dense polymer fiber mat.

40. (currently amended) The prefabricated construction element of Claim 1, the impervious membrane comprising Tyvek®.

41. (currently amended) The prefabricated construction element of Claim 1, the ~~cement~~ core comprising Portland cement and an additive selected from the group consisting of expanded shale, expanded clay, sintered clay, pumice, slag, calcium carbonate, slate, diatomaceous slate, perlite, vermiculite, scoria, volcanic cinders, tuff, diatomite, sintered fly ash, industrial cinders, gypsum, foam beads and glass beads.

42. (currently amended) The prefabricated construction element of Claim 1, further comprising a pervious upper reinforcement material on the upper principal surface of the core.

43. (currently amended) The prefabricated construction element of Claim 42, further comprising an upper coating in communication with the upper principal surface of the core and the pervious upper reinforcement material.

44. (currently amended) The prefabricated construction element of Claim 42, further comprising a cement slurry binding the pervious upper reinforcement layer to the upper principal surface of the core.

45. (currently amended) A prefabricated asymmetrical construction element for use after its manufacturing as an underlayment or backerboard comprising:

(a) a core having an upper principal surface and a lower principal surface; and

(b) an impervious membrane on the lower principal surface of the core, the impervious membrane remaining on the lower principal surface of the core after the manufacture of the construction element;

the construction element being asymmetrical in design such that a layer or layers on the upper principal surface differ in arrangement from the layer or layers on the lower principal surface; and

the construction element being prefabricated.

46. (currently amended) The prefabricated asymmetrical construction element of Claim 45, the upper principal surface and the lower principal surface of the core have different moisture-resistant layers, respectively, on each.

47. (currently amended) The prefabricated asymmetrical construction element of Claim 46, the different moisture-resistant layers having different moisture-resistant properties, and the impervious membrane enabling water vapor to pass therethrough.

48. (currently amended) A prefabricated asymmetrical ~~construction element~~ cementitious panel for use after its manufacturing as an underlayment or backerboard comprising:

(a) a core having an upper principal surface and a lower principal surface;

(b) a pervious upper reinforcement material on the upper principal surface of the core;

(c) an upper coating in communication with the upper principal surface of the core and the pervious upper reinforcement material; and

(d) an impervious membrane on the lower principal surface of the core, the impervious membrane remaining on the lower principal surface of the core after the manufacture of the ~~construction element~~ cementitious panel;

the ~~construction element~~ cementitious panel being asymmetrical in design such that the layer or layers on the upper principal surface differ in arrangement from the layer or layers on the lower principal surface.

49. (currently amended) The prefabricated asymmetrical ~~construction element~~ cementitious panel of Claim 48, the core including alkaline resistant fibers.

50. (currently amended) The prefabricated asymmetrical ~~construction element~~ cementitious panel of 49, the alkaline resistant fibers being chopped reinforcement fibers randomly dispersed in the core.

51. (currently amended) The prefabricated asymmetrical ~~construction element~~ cementitious panel of Claim 50, the impervious membrane comprising a reinforced polymer membrane.

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